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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,741	08/21/2003	Sang Woon Suh	1740-000055/US	6208
30593 7590 09/20/2007 HARNESSE, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195			EXAMINER LAMB, CHRISTOPHER RAY	
			ART UNIT 2627	PAPER NUMBER
			MAIL DATE 09/20/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/644,741

Applicant(s)

SUH ET AL.

Examiner

Christopher R. Lamb

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7-9 and 14-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7-9 and 14-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 7/31/07.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 16<sup>th</sup>, 2007 has been entered.

***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3, 5, 6, and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. (US 6,289,102).

Regarding claim 1:

Ueda discloses a high-density computer-readable medium (abstract: it is high density as described in column 1), comprising:

at least one access block including physical address data and user control data (the lead-in area: column 7, lines 55-65);

at least one playback allowance code (abstract: "key information"), which is adapted to determine region-based allowance of playback of data recorded on the recording medium (column 2, lines 25-40),

at least one of an address unit number and user data recorded on the recording medium (abstract),

wherein at least one of the address unit number and the user data is scrambled by being logically combined with said at least one playback allowance code (abstract: e.g., column 8, lines 1-15).

Ueda does not disclose:

wherein the physical address data has 24 columns and 6 rows, and the user control data has 24 columns and 24 rows.

However, it would have been obvious to one of ordinary skill in the art at the time of the invention wherein in Ueda the physical address data has 24 columns and 6 rows, and user control data has 24 columns and 24 rows.

The rationale is as follows:

Ueda discloses a lead-in area that contains physical address data and user control data. The only difference between Ueda and the claimed invention is the claimed number of columns and rows: in other words, the size of the area.

However, that size can easily be determined in the course of routine engineering optimization/experimentation to determine the appropriate size. Moreover, absent a showing of criticality, i.e., unobvious or unexpected results, the relationships set forth in this claim are considered to be within the level of ordinary skill in the art.

Additionally, the law is replete with cases in which the mere difference between the claimed invention and the prior art is some range, variable or other dimensional limitation within the claims, patentability cannot be found.

It furthermore has been held in such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range(s); see *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Moreover, the instant disclosure does not set forth evidence ascribing unexpected results due to the claimed dimensions; see *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338 (Fed. Cir. 1984), which held that the dimensional limitations failed to point out a feature which performed and operated any differently from the prior art.

Regarding claim 3:

In Ueda said at least one playback allowance code comprises a code for a playback-allowed region (column 2, lines 25-40), the code for the playback-allowed region being combined with at least one of the address unit number and the user data in a scrambled state (abstract: e.g., column 8, lines 1-15).

Regarding claim 5:

In Ueda said at least one playback allowance code is used to de-scramble at least one of the address unit number and the user data when the recording medium is played back (abstract: e.g., column 7, lines 55-65).

Regarding claim 6:

In Ueda said at least one playback allowance code is recorded in a part of user control data recorded on the recording medium.(it is in the lead-in area: abstract).

Regarding claim 14:

Ueda discloses a method of recording data on a high-density computer-readable medium, comprising the steps of:

(A) selecting a region-based playback allowance code in order to restrict a playback, the region-based playback allowance code being unique to at least one region (selecting a code: column 7, lines 40-65; that a code may be region-based: column 2, lines 25-40) and being stored in user control data of at least one data block (the lead-in area), the at least one data block including physical address data having 24 columns and 6 rows, and the user control data having 24 columns and 24 rows (obvious as noted in the rejection of claim 1 above); and

(B) scrambling at least one of a user data and an address unit based on the selected region-based playback allowance code (column 7, lines 40-55).

Regarding claim 15:

The method of Ueda further comprises the steps of:

(C) recording at least one of the scrambled user data and the address unit with the selected region-based playback allowance code on the high-density recording medium (column 7, lines 40-65).

Regarding claim 16:

In Ueda the selected region-based playback allowance code is one of at least two codes (e.g., Fig. 3: Ueda has multiple codes and the number indicates which one is used).

5. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda (these claims have been listed separately because a different embodiment of Ueda has been used to reject them, compared to the claims above).

Regarding claim 7:

Ueda discloses:

A method for reproducing data of a high-density computer-readable medium, comprising the steps of:

(A) identifying region identification information stored in a recording/reproducing apparatus, and detecting a region-based playback allowance code stored in user control data of the computer-readable medium that includes at least one access block having physical address data and user control data (the lead-in area noted in column 32: step S1400), corresponding to the identified region identification information, from user control data recorded on the recording medium (column 32: step S1400 – in this embodiment the disk key is a region-based playback allowance code. The disk key is region-based because it itself can only be decrypted if the apparatus possesses the correct master code, which is stored in the apparatus, and thus can be restricted by region, as in column 2, lines 25-40); and

(B) de-scrambling a scrambled address unit number read from the optical disc, based on the detected playback allowance code, and (column 32: step S1402 – the disk

key is used to decrypt the encrypted sector header, which inherently includes address information)

performing a data reproducing operation by referring to the de-scrambled address unit number (column 33, lines 20-25).

Ueda does not disclose:

wherein the physical address data has 24 columns and 6 rows, and the user control data has 24 columns and 24 rows.

However, it would have been obvious to one of ordinary skill in the art at the time of the invention wherein in Ueda the physical address data has 24 columns and 6 rows, and user control data has 24 columns and 24 rows.

The rationale is as follows:

Ueda discloses a lead-in area that contains physical address data and user control data. The only difference between Ueda and the claimed invention is the claimed number of columns and rows: in other words, the size of the area.

However, that size can easily be determined in the course of routine engineering optimization/experimentation to determine the appropriate size. Moreover, absent a showing of criticality, i.e., unobvious or unexpected results, the relationships set forth in this claim are considered to be within the level of ordinary skill in the art.

Additionally, the law is replete with cases in which the mere difference between the claimed invention and the prior art is some range, variable or other dimensional limitation within the claims, patentability cannot be found.

It furthermore has been held in such a situation, the applicant must show that the



particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range(s); see *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Moreover, the instant disclosure does not set forth evidence ascribing unexpected results due to the claimed dimensions; see *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338 (Fed. Cir. 1984), which held that the dimensional limitations failed to point out a feature which performed and operated any differently from the prior art.

Regarding claim 8:

In Ueda the region identification information is intrinsic region identification information for a region where the recording/reproducing apparatus is to be sold and used (again, because the disk key is decoded using a master key stored in the apparatus, it is intrinsically restricted to the region where the apparatus is sold).

Regarding claim 9:

In Ueda the step (B) comprises the step of logically combining the detected playback allowance code with the scrambled address unit number read from the recording medium, thereby de-scrambling the scrambled address unit number into an original address unit number (column 32: step S1402).

6. Claims 4 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda in view of Reed.

Regarding claim 4:

Ueda discloses a high-density recording medium as discussed above in the rejection of claim 1.

Ueda does not disclose "at least one false playback allowance code for a playback-inhibited region, the at least one false playback allowance code being recorded with an optional value other than a value of said playback allowance code."

Reed discloses recording decoy keys on an optical disc (paragraph 74).

It would have been obvious to one of ordinary skill in the art to include in Ueda at least one false playback allowance code for a playback-inhibited region, the at least one false playback allowance code being recorded with an optional value other than a value of said playback allowance code (in other words, a decoy code).

The motivation would have been to improve the security of the disc.

Regarding claim 17:

Ueda discloses a method of recording data as discussed above in the rejection of similar claims 14-16. Ueda does not disclose recording "non region-based playback allowance codes" on the disc. However, this is taught by Reed (decoy keys being non region-based playback allowance codes) as discussed above.

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1, 3-5, 7-9, and 14-17 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Lamb whose telephone number is (571) 272-5264. The examiner can normally be reached on 9:00 AM to 6:30 PM Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CRL 9/11/07

/William Korzuch/

SPE, Art Unit 2627